

ABSTRACT OF THE DISCLOSURE

The virtual three-dimensional image of an observed object is formed by arranging a plurality of sectional images and projected from a viewpoint fixed to a predetermined position onto a projection plane which is fixed to a predetermined position to form and display a perspective image. The pixel value on the sectional image which is transversed by a projection line extending from the viewpoint to the projection plane are read and, if the read value coincides with one of a plurality of predetermined values, pixel data are recorded in a pixel recording region corresponding to that value in pixel value memories. While the projection line scans the pixels one by one on the projection plane, for each coming scanned pixel the pixel data are recorded. After all the data are recorded, the pixel data recorded in the pixel value memories are read out and the data are displayed on a display as a perspective image.